Time transfer accuracy

Daniele Rovera[†], Clement Courde[‡], Julien Chabé[‡], Jean-MarieTorre[‡]

†LNE-SYRTE, Observatoire de Paris, Université PSL, CNRS, Sorbonne Université, 61ãvenue de l'Observatoire 75014 Paris, France

‡Université Côte d'Azur, Observatoire de la Côte d'Azur, CNRS, IRD, Géoazur, 2130 route de l'Observatoire, 06460 Caussols, France

e-mail: daniele.rovera@obspm.fr

Time transfer accuracy Laser ranging stations can be powerful tools for the comparison of distant clocks as it was demonstrated by the T2L2 experiment [1, 2]. When the goal is the comparison of distant timescales with accuracy well below 1 ns many component of the accuracy budget that are usually neglected must be taken into account. First of all the uncertainty associated to the definition of the time marker of each local timescales and to the propagation of signals from the time scale reference to the internal timescales of equipment. Some ideas about the practical definition of a time marker and on the measurement of time difference between nearly located equipments has been recently published [3]. In the presentation we will report some of the basic concept and the results obtained by comparing T2L2 with time transfer using GPS receivers [4].

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